



How Times Have

CHANGED

Waterfowl 1988 to 2008

By Mike Johnson

Editor's Note: Portions of this article were published in the Fall Outlook in the August-September 2008 North Dakota OUTDOORS. Because of the many changes in waterfowl management and conservation in the last 20 years, the article is printed here in its entirety.

1988 seems like only yesterday. How much could things have changed in the world of waterfowl since then? A lot more than first comes to mind, it turns out, as I looked back through files, notes, reports and records, to compile a short report for this year's waterfowl season outlook.

Twenty years. Two decades. A generation. Families grow up. Grandchildren arrive. Friends and co-workers retire; some pass away. At least two different hunting dogs, maybe three. Lots of things can and do change over the years; it's inevitable.

A wise college professor of mine once said that "Change is the name of the game," and that certainly is true in the world of migratory game bird management and conservation.

In researching this topic, the first place I looked was in my computer files to review letters, meeting notes, reports, data summaries, charts and graphs from 1988. Wrong! We had computers then – I have been using computers since the mid-1960s, but they were teletypes, or data card terminals hooked to huge mainframe computers miles away. Often these terminals were large cumbersome affairs that spewed pounds of pages on continuous form paper that we loaded by the 50-pound case.

Computer screens or monitors were virtually nonexistent. Personal computers were just on the verge of general use in 1988. In a file drawer, I found my 1988 handwritten first draft of the North Dakota Concept Plan for the Prairie Pothole Joint Venture. The PPJV was just getting established under the newly-adopted North American Waterfowl Management Plan, which was officially signed in 1986.

I didn't get my first personal computer until late 1988 or early 1989, and I remember how amazing it was to type and edit a document to completion without the tedious handwriting, editing and retyping. In 1988, the Internet was unknown, and e-mail wasn't yet even a dream.

What about ducks and geese? The Prairie Pothole Region and its migratory bird resources is a highly dynamic ecosystem. Huge changes in wetland conditions and bird distribution are the norm. The system is highly variable from season-to-season, year-to-year and decade-to-decade. Migratory birds have evolved and adapted their life strategies to be successful in these ever-changing conditions. Therefore, migratory bird populations tend to be relatively stable over the long-term, barring extensive human intervention.



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cover (CRP and pastures) and record high wetland conditions, could produce a substantial portion of North America's annual duck crop.

In June 1988, the U.S. Fish and Wildlife Service had just issued its Final Supplemental Environmental Impact Statement: Issuance of Annual Regulation Permitting the Sport Hunting of Migratory Birds. This important document replaced the original migratory bird hunting EIS completed in 1975. The 1988 document was the product of years of work by the FWS and flyways, and continues to guide migratory bird season setting today. A new environmental impact analysis is in the works to replace this 20-year-old document.

One of the hottest topics in waterfowling in 1988 was nontoxic shot. After decades of deliberation, contentious debate, legislation and litigation, a lawsuit over lead poisoning of eagles led to mandatory nontoxic shot regulations for waterfowl hunting across the United States. By 1989, nontoxic shot was required statewide for ducks, geese, coots, swan, snipe and sandhill cranes.

Populations and Habitat

In 1988 we were in the grips of drought, with the worst to come. The spring wetland index was the seventh lowest on record. By 1990, the index would reach a record low.

In terms of management and conservation of prairie nesting ducks, 1988 was a world apart from where we are today. In 1988, we were just learning what the new North American Waterfowl Management Plan might mean for waterfowl conservation. This ground-breaking document, signed by the United States and Canada in 1986, would bring new resources to work on waterfowl habitat conservation. The PPJV, a consortium of state, federal and private partners from the five Prairie Pothole states, was just getting organized and its concept plan being developed. Organization of the North Dakota Action Group, waterfowl habitat conservation partners working under the PPJV within North Dakota, was also just underway.

In 1988 we were also just learning about the Conservation Reserve Program and its potential to improve production of ducks and other wildlife. Waterfowl managers were still fighting to produce ducks on a landscape devastated by fencerow-to-fencerow plowing, much of it on fragile soil. Duck recruitment was low, and over much of the landscape nest success rates were not high enough to maintain populations. Fragmented nesting cover and abundant predator populations, especially red fox, resulted in the loss of millions of nesting hens and nest success rates that were often well below 10 percent.

Managers worked hard to produce ducks on limited habitats, using predator proof fencing, nest structures and other strategies. Because it was still very dry, we had not yet learned that North Dakota, with large blocks of nesting



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GPS tracking and on-the-road computer data entry nowadays means waterfowl survey results are available in much less time than was the case 20 years ago.

Water returned in a big way in summer 1993. Prairie pot-holes flooded to levels not seen since European settlement of the Dakotas. Exceptional water conditions prevailed for a record 14 years. This year, prairie ecosystem dynamics are again drying pot-holes. Following 2007, which had the 49th highest water index in our 60-year survey history, the spring 2008 water index was the 10th lowest on record.

The 2008 spring breeding duck index included more than 3.4 million birds, 60 percent above the 1948-2007 average, and the 13th highest on record. Our report, however, cautions that these high duck numbers do not indicate a high breeding effort this year. Because of very dry conditions, many ducks moved out of the state shortly after the survey or simply didn't breed.

The 1988 breeding duck index was nearly 1.9 million birds, or about 12 percent above the long-term average, but only about one-third of the number of ducks we would see in 2002, a record year.

North Dakota's mallard numbers in 2008 were about 152 percent above that of 1988, but just half of the record number of mallards in 2001. Scaup numbers are especially interesting. Despite a significant drop in continental scaup populations over time, the number of scaup tallied in North Dakota in spring increased from 175,380 in 1988 to 434,264 in 2008. The reasons for the increase are uncertain, and we know that only a small portion of the scaup counted in spring actually breed in North Dakota.

The duck brood index in 2008 was again lower, dropping to 58 percent below the record set in 2006 and down 12 percent from 2007. Even though the brood index is the lowest since 1995, it is still twice that of 1988, and 35 percent higher than the 1965-2007 average index. The 2008 July water index was the lowest since 1992, but still 64 percent above the 1988 mark.

Canada Goose Rebound

In 1988, the restoration of giant Canada geese in North Dakota was still underway. After extirpation from the state by the mid-1920s, wildlife managers had restored breeding birds to several national wildlife refuges by the late 1960s. Large-scale releases of hand-reared birds began in 1972 under the guidance of Forrest Lee at Northern Prairie Wildlife Research Center in Jamestown and Chuck Schroeder at the Game and Fish Department, with restoration efforts continuing with transplants of wild birds beginning in 1982. In 1988, more than 750 geese were transplanted to 16 counties and nesting Canada geese were established across much of the state, but it was unclear whether

a huntable population could be maintained without continued extraordinary efforts.

The 1988 Canada goose index was 18,000 birds. Thus, it appeared that we had met about half the goal of 5,000 nesting pairs for North Dakota established in the Central Flyway's management plan for Great Plains Population Canada Geese. The 2008 Canada goose index was 251,300, which is down considerably from the record 2007 index of 362,800 geese. It is likely that fewer breeding geese were tallied this year because of a reduced nesting effort due to dry conditions. These birds have provided a huge hunting resource for waterfowlers in North Dakota and the Central Flyway, but have also caused problems, such as crop depredation.

Light geese (snows, blues and Ross's geese) and issues surrounding their overabundance have been an important management issue for more than a decade. In 1988, the Mid-Continent Light Goose Population survey showed 1.75 million birds. In winter 2008, numbers jumped to 2.92 million birds, well above

the goal of about 1.5 million geese. In 1988, no one envisioned that a spring management hunt would or could be implemented.

The spring light goose season is intended to help reduce overabundant light geese to prevent destruction of arctic habitats. The first spring season in North Dakota was held in 1999. Data from the 2008 season is not yet available, but in spring 2007, nearly 1,750 hunters harvested an estimated 12,535 birds. There are no bag or possession limits in this special management take, and hunters are

allowed to use unplugged shotguns, electronic calls and hunt 30 minutes after sunset – regulations that were unthinkable in 1988.

Prior to Canada goose restoration efforts, small Canada geese from the Tall Grass Prairie Population dominated North Dakota's Canada goose harvest. In 1988, large-type Canada geese were becoming more prominent in the harvest, but the smaller geese still comprised about 50 percent of our Canada goose take. As giant Canada goose restoration efforts advanced in North Dakota and elsewhere, large-type Canada geese have become the predominant bird in the bag.

In 1988, Tall Grass Prairie Canadas were still below the population objective level of 250,000 birds. To protect these birds, we maintained restrictive bag limits that had been in place since the mid-1960s. This careful management has paid off. In 2007, the Tall Grass Prairie population index was nearly 527,000 birds. Despite the tremendous population increase, these birds make up less than 15 percent of our Canada goose harvest. Large-type



Spring snow goose hunting, with electronic calls allowed, was not a reasonable expectation 20 years ago.

Canada geese are now the target of most goose hunters.

Along with the tremendous increase in resident Canada goose numbers came a large increase in the number of Western Prairie Canada geese. These large-type geese mix with resident Canada geese, making it impossible to separate them during fall and winter surveys.

Numbers of large-type Canadas staging on the Missouri River System in North Dakota have been increasing since the late 1980s. In January 1988, 32,000 Canadas were tallied on the Missouri River. In January 2008, a record 171,600 Canadas were counted on the Missouri and Nelson Lake.

Seasons and Harvest

With all the changes in habitat and populations, what happened to harvest regulations, hunting activity and harvest during the past 20 years? In 1988, survey data showed 31,064 waterfowl hunters, of which 26,841 were residents and 4,223 nonresidents. This was during the drought and restrictive waterfowl seasons that accompanied it.

When the water returned, teamed with a CRP-benefited landscape, duck populations boomed. Resident waterfowl hunter numbers peaked at 39,118 in 1999 and nonresident numbers topped at 30,029 in 2001. In 2007, preliminary estimates indicate North Dakota fielded 25,549 resident and 22,857 nonresident waterfowl hunters.

The duck season in 1988 was very restrictive: 39 days in length, opening on October 1 and closing November 13. Shooting hours opened at sunrise. The daily bag limit was three ducks, of which two could be mallards (one hen), one pintail, one red-head and one wood duck. Mergansers were included in the duck limit. Canvasback hunting was closed, as it had been since 1986, and remained closed through 1993. For the first time, North Dakota was allowed to take part in the High Plains season, open 12 days in December with a daily limit of two drake mallards.

Regulations were considerably more liberal for the 2007 duck season. The 72-day season opened September 22 and closed December 2. Shooting hours opened 30 minutes before sunrise. This was the second year of the Central Flyway's hunter's choice bag limit experiment of five ducks per day with the following species and sex restrictions: two scaup, two redheads, two wood ducks and only one hen mallard, pintail, or canvasback. The merganser limit was separate from the duck limit. In addition, the High Plains season ran for 23 days in December, with bag limits the same as the regular season.

The 1988 dark goose season ran from October 1 through November 13 with a daily limit of two dark geese per day, of which only one could be a Canada through October 30. From October 30 to November 13, the daily limit could include two Canada geese. Additionally, to provide added late season goose hunting opportunities, we established for the first time a dark goose late season zone along the Missouri River that ran for one week beginning November 14. The bag limit was two dark geese with no species restrictions.

Light goose hunting in 1988 ran from October 1 through

November 27 with a bag limit of five daily and a possession limit of 10. In 2007, the light goose season ran from September 22 through December 21 with a daily bag limit of 20 and no possession limit.

Half-day hunting restrictions were in place through all goose seasons in 1988. In recent years, half-day shooting hours have been adjusted to increase light goose harvest and to provide additional hunting opportunities without driving birds from the state. In 2007, half-day shooting hours were in place daily for all geese, except for Saturdays and Wednesdays, throughout the entire season.

Another major change in waterfowl and migratory game bird management is the Harvest Information Program. This federally-mandated program requires state wildlife agencies to register all migratory bird hunters. Data from the questionnaires provide an accurate measure of the waterfowl harvest and all other migratory game birds being hunted. Harvest data, along with population data from a wide variety of surveys, is necessary for appropriate management of these resources.

Another first for 1988 was the tundra swan hunting season. In the first year, only 400 permits were available and an estimated 301 hunters bagged 191 swans. In 2007, 2,200 permits were available and 1,672 hunters shot 652 swans.

In addition to regular waterfowl season hunting opportunities, a special youth season was introduced in 1996. Information from the 2007 season indicates that 770 youth hunters harvested 3,608 ducks and 1,677 geese.

Another special hunting season not in place in 1988 is the September Canada goose hunting season. This season, designed to harvest resident Canada geese, was established in 1999. In 2007, 5,355 hunters shot more than 19,000 geese.

Future Concerns

A lot has changed in the world of waterfowl conservation and management in the past 20 years. We can expect even greater changes in the future as waterfowl struggle to deal with an increasingly altered landscape.

How will we maintain late season goose hunting opportunities in the face of migration patterns that will shift in response to hunting pressure, land use and weather patterns? How will we continue to provide abundant duck populations with declining wetland and grassland habitats? Ducks can cope very well with the dynamics of weather-caused changes to grassland and wetland habitats. But increasing pressures to produce crops and energy are likely to create a prairie pothole landscape less capable of producing ducks.

We faced many of these same challenges in the mid-1980s. Yet, thanks to CRP and nature's precipitation, an unprecedented string of good years followed. Unfortunately, those good years appear to be ending, and only time will tell what story we'll convey in these pages in 2028.

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